

ABSTRACT

A laser beam, which scans a display screen comprised of an array of picture elements. Each picture element is further comprised of a photocell connected to an LED in the presence of an electric field. The laser's intensity and or duration on selected photocells produces the desired intensity of LED illumination for that pixel. The photocells convert photons from the laser into a current flow, which is accelerated and amplified by the presence of the electric field. With quantum efficiency significantly greater than one, it is possible to create a RGB color display screen activated by a scanning laser. LEDs may be arranged in an alternating pattern of red, green, and blue to form the color display. The LED may also be monolithic in construction, coated with an alternating pattern of red, green, and blue phosphors to form the color display.